

NOTES ON THE LIFE HISTORY OF *CETHOSIA PENTHESILEA* *PAKSHA* FRUHSTORFER (LEPIDOPTERA: NYMPHALIDAE)

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Abstract

The author briefly describes the life history of *Cethosia penthesilea paksha* Fruhstorfer including the first report of an Australian food plant.

Introduction

The orange lacewing *Cethosia penthesilea paksha* Fruhstorfer is confined to patches of relict monsoon rain forest distributed throughout the northern part of the Northern Territory over an area north of latitude 15° S. Adults can be found throughout the year but are usually more common during the first half of the dry season (April to July).

Life history

Food plant.— The food plant, *Adenia heterophylla* Blume (Koord) subspecies *australis* (Robert Brown ex deCondolle) deWilld. (Passifloraceae) is a rampant climber to 30 m in length reaching high into the tops of trees, and bearing bright green entire leaves up to 15 cm long x 10 cm wide. The plant bears conspicuous ovoid fruit, about 4 cm long, green at first then ripening to a rich crimson, which split to reveal passionfruit-like seeds.

On 30 May 1976, three first instar larvae were collected together with their food plant from an area of moderately timbered monsoon rain forest, situated adjacent to open black soil plains, 5 km east of the Adelaide River along the Arnhem highway.

Larva (Fig. 1).— The first instar larvae were bright reddish brown in colour, with a white horizontal band on abdominal segment 4, and a black head. All segments were clothed with bristles. Later instar and mature larvae were orange with brown intersegmental bands, abdominal segment 4 chalk white, and thoracic and abdominal segments 2, 6 and 8 with large chalk white lateral areas. The anterior half of the prothorax was also white above. The thoracic and abdominal segments each had six long tapering spines, black except on abdominal segment 4, where they were chalk white, tipped with black. The head was black with two long black cylindrical spines.



Fig. 1. Last instar larvae of *Cethosia penthesilea paksha*.

The larvae were gregarious, feeding, moulting and pupating together. In captivity they preferred to eat the stems and fruit of the food plant rather than the leaves; indeed, woody stems up to 1 cm in diameter were completely devoured. Two larvae pupated on 24 June 1976.

Pupa (Fig. 2).— The pupae were bluish black in colour, mottled with white. They had a pair of knobbed anterior processes and a pair of short white dorsal spines on the head, three shiny gold dorsal spots on the thorax, six white spines up to 7.5 mm in length on abdominal segment 3, and paired flattened dorsal processes with sharp tips on abdominal segments 2 and 4 to 6, the largest on 2. The pupae were suspended by the cremaster.



Fig. 2. Pupa of *Cethosia penthesilea paksha*.

Discussion

The spines on both head and body of *C. penthesilea paksha* are not branched. In other species of *Cethosia*, including *C. cydippe* L., the larvae are said to have branched spines (Common and Waterhouse, 1972; Corbet and Pendlebury, 1978), but at least in *C. cydippe* the branches are reduced to small spicules (Common, pers. comm.) and this could be true of exotic species also. The pupa is grotesquely shaped and bears some resemblance to that of *C. cydippe* (Common and Waterhouse, 1972, figs 17L, 17M), but there are prominent white spines in *C. penthesilea* and flattened, centrally expanded dorsal processes of the abdomen, with sharp points.

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References

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